From: Wilson, Elise
To: PSC_Contact
Subject: FW: [External] Solar energy buy back scheme
Date: Tuesday, September 21, 2021 2:32:37 PM
Attachments: Proposal-Grid Isolation architecture- June 29-2021.pdf

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From: Ananta Gopalan
Sent: Wednesday, September 15, 2021 4:33 PM
To: PSC_Contact <contact@psc.sc.gov>
Subject: [External] Solar energy buy back scheme

Dear Commissioners
I am writing to you and attaching a letter that I wrote to a committee that consisted of SC legislative representation and others appointed by the governor, I assume. My concern is the unnecessary introduction of unreliability to our electric power grid due to allowance of retail solar generators feeding into the grid at the same rate per kwh as the utility charges its customers. Unfortunately, I have not gotten one single response from those members of the committee.
I am a rate payer with the Dominion Energy and a recent docket information concerning the chargeable rate paid to the home owners and others feeding their energy into the grid. As the solar energy and for that matter, wind energy as well, presents unreliable, uncontrollable, and intermittent generation of electric power, the proposed method to compensate those retail generators forces other rate payers into accepting potential and unnecessary interruptions to their power service.
I hope you will consider what I have proposed to alleviate the issue of problematic renewable energy loading into the grid affecting the grid stability. Here is what I wrote:
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I am writing this letter to you with an attachment that discusses the inherent nature of the unreliable power sources imposed on the electrical grid, destabilizing it. I had been in contact with Mr. Rick Campana of the Energy Office and he indicated to me that their office is not charged with considering any modifications to the energy directives of the state and the PUC.

Let me just say that my background is that I am a retired engineer that has worked for GE Aircraft engines in the design and development of military type aircraft engine components and complete engines for governmental customers here and abroad. I have also worked prior to that in GE Large Steam Generator division and have developed and designed steam control valves for large 2400 psi and 3500 psi units producing 350 to 1000 MW power. Those units operate continuously 24/7 and have scheduled maintenance every two years. I have been to many power plants due to forced outages to help customers diagnose and fix the problems so that they can return the unit back on line as quickly as possible. I understand operation of electrical generation systems and I understand the engineering principles involved in generating power.

I am sending you a document that I have put together suggesting that we look at an alternate way of accommodating the solar power generation without compromising grid reliability which it will as the State and PSC force the utilities to adopt policies inherently unreliable and frankly, technologically

backwards. Wind and solar power generation however sophisticated in terms of the components, can never be efficient or successful for providing inexpensive easily accessible and reliable power systems demanded for higher standard of living for our people. The simple reason for that is they rely on collecting what is available. The Second Law of Thermodynamics clearly establishes that the available energy at the prevailing entropy level is extremely limited and that a reversible process will be needed to harvest available energy. That is the reason that we need fuels such as coal , oil, natural gas or nuclear materials to be able to release their latent energy for very little expenditure of energy. What that says is that advances in improving energy extraction efficiency will channel us to develop technology to release the latent energy available in a concentrated form, such as nuclear fusion which makes helium from hydrogen atoms, releasing enormous energy just like the sun and the stars.

I hope you would review it and see the validity of my argument in it.

Thank you for your consideration

Ananta Gopalan

Bluffton, SC 29910